

Misuse of Atypical Antipsychotics

Atypical antipsychotics, including clozapine (Clozaril), olanzapine (Zyprexa), risperidone (Risperdal), quetiapine (Seroquel), ziprasidone (Geodon), and aripiprazole (Abilify), are FDA-approved for the treatment of schizophrenia and bipolar disorder. Aripiprazole is also indicated for adjunctive therapy in major depressive disorder. In addition to these indications, use of these drugs below labeled dosage ranges is also common in the management of autism, psychotic disturbances in children, and dementia-related psychoses.

Insomnia without Comorbid Psychosis

Because somnolence is a commonly reported side-effect with many of these agents, they may be dosed at bedtime to take advantage of this activity in patients whose psychosis is accompanied by nighttime agitation and/or insomnia. According to consensus guidelines, patients with schizophrenia and insomnia should be treated with more sedating agents such as olanzapine, quetiapine or clozapine. This practice has led to the idea of using low-dose atypical antipsychotics (doses considered subtherapeutic for schizophrenia or bipolar disorder) for insomnia in patients who do not have comorbid psychosis. While this application is becoming more common, particularly with quetiapine, it is not FDA-approved and not supported by available clinical data.

Key Points

- ◆ Off-label use of atypical antipsychotics has steadily increased over the years
- ◆ Quetiapine (Seroquel), aripiprazole (Abilify), risperidone (Risperdal), and olanzapine (Zyprexa) were among the top 10 most costly drugs to Idaho Medicaid prescribed in 2007, totaling over \$18 million
- ◆ In 2007, quetiapine was the most costly drug and accounted for over 36,000 claims submitted to Medicaid; about 10% of these claims were for low doses considered subtherapeutic for schizophrenia or bipolar disorder
- ◆ Low dose atypical antipsychotics should not be used in patients without comorbid psychiatric indications given the potential for metabolic adverse effects and significant cost of these medications
- ◆ Misuse, diversion, and abuse of quetiapine among prison inmates and others is a recently reported concern

Well-known metabolic adverse effects including weight gain, increases in blood glucose and cholesterol, as well as the potential for the development of overt diabetes have been reported with these drugs. These risks, combined with the significant economic costs associated with this class (see Table I), should lead clinicians to exercise caution when prescribing atypical antipsychotics for insomnia without comorbid psychosis, especially given the availability of alternatives which may be safer and less costly.

Abuse and Diversion of Quetiapine

Recently, numerous case reports have been documented describing abuse and diversion of quetiapine in prisons. Known in correctional institutions as “quell,” “baby heroin,” or “Susie Q,” quetiapine may be abused for its sedative or anxiolytic effects either orally, nasally or intravenously.¹ Doses of up to 2400mg have been reported.² Combination of prescription and illicit drugs, while not a new phenomenon, is likewise becoming more common with quetiapine as it may act synergistically to heighten the “high” of certain illicit substances while reducing undesirable effects. Quetiapine in combination with cocaine, known as “Q-ball” has been reported and is hypothesized to decrease the withdrawal or dysphoria in addition to providing a hallucinogenic effect.

Diversion of quetiapine may not be limited to institutional settings. Patients using quetiapine for legitimate purposes may have prescriptions stolen or “borrowed” by friends, family members, or others who are aware of its abuse potential. Requests for early refills or continued complaints by patients of symptoms not common for schizophrenia may be indications of abuse. Awareness of the risk for abuse is important for healthcare professionals and should be considered to prevent inappropriate and/or unnecessary prescriptions for atypical antipsychotics.

Table I: Comparison of Atypical Antipsychotics

DRUG	USUAL DOSE FOR BIPOLAR	USUAL DOSE FOR SCHIZOPHRENIA	AVERAGE COST PER MONTH
Abilify (aripiprazole)	30 mg qd	10-15 mg qd	\$309-508
Clozaril (clozapine)	---	300-450 mg qd	~\$101-301
Geodon (ziprasidone)	40-80 mg bid	20-100 mg bid	\$361-435
Risperdal (risperidone)	1-6 mg qd	2-8mg qd	\$145-660
Seroquel (Quetiapine)	400-800 mg qd	300-800 mg qd	\$594-720
Zyprexa (Olanzapine)	5-20 mg qd	10-20 mg qd	\$248-639

References:

1. Pierre JM, Shnayder I, Wirshing DA, et al. Intranasal quetiapine abuse. *Am J Psychiatry* 2004; 161:1718.
2. Reeves RR, Brister JC et al. Additional evidence of the abuse potential of quetiapine. *South Med J* 2007;100:834-6.
3. Waters BM, Joshi KG. Intravenous quetiapine-cocaine use (Q-ball). *Am J Psychiatry* 2007;164:173-74.
4. Miller D. Atypical Antipsychotics: Sleep, Sedation, and Efficacy. *Prim Care Companion J Clin Psychiatry* 2004;6:3-7.